

by the applicant to address the previous rejection by the Examiner in view of the Moronga reference. The Rule 132 Declaration stated that, in the population of samples tested by the applicant (approximately 1000 resilient materials), two samples fell in the range covered by the independent claims. One of those samples was made of a PVC and the other sample was made of a vinyl nitrile. The Examiner now relies on this statement to conclude that every possible PVC material and every possible vinyl nitrile material will fall in the claimed resiliency index range.

The applicant respectfully disagrees. The applicant has tested dozens of PVC foams and has found only one to have a resiliency index that falls within the ranges claimed. PVC foams can have a broad range of resiliency indices. Although the base stock (i.e. the PVC) determines the approximate range of resiliency indices, the factors that primarily determine the resiliency of the finished product are the number of chemical additives added to the base stock to control the degree of cross-linking during polymerization; the aeration of the substrate that determines the size of voids, their density and the overall density of the foam; and countless variables in the process timing and temperatures in the curing of the polymer foam. Thus, two PVC foams, though born of the same base stock, can have significantly different resiliency indices.

In fact, as evinced by the applicant's extensive research, most PVC foams are of high resiliency whereas only one PVC foam was found to be of the low resiliency recited in the claims. Thus, the PVC foams cannot be said to "inherently" have the resiliency indices as claimed because, of all the known PVC foams, there is only one that can be properly classified as low resiliency. Thus, if one were to generally categorize PVC foams, one would be forced to conclude that they are overwhelmingly of high resiliency and fall outside the scope of the claims. In other words, they are "inherently" of high resiliency, rather than of low resiliency.

Against this background, it clearly appears that the mere reference in Marc to the use of PVC in footwear is insufficient to support the Examiner's conclusions. Marc does not state that this PVC is a low resiliency foam or that the PVC improves balance or stability. Nor is Marc addressing the problem of improving balance and stability in humans. The applicant is, however, believed to be the first to identify that a low resiliency material improved balance and stability in humans. The applicant is believed to be the first to develop a comprehensive testing methodology for measuring resiliency. Finally, after an exhaustive testing of hundreds of materials, extending beyond the footwear industry, the applicant was the first to identify a material that, according to his testing

method, could be categorized as a "low resiliency" material capable of improving balance and stability in humans.

For the foregoing reasons, the applicant respectfully requests that the rejection of claims 1-3, 7-11 and 15-18 under 35 USC §102(b) as being anticipated by Marc be withdrawn.

The same comments can also be presented in connection with the rejection based on Pyle. As is the case for PVC foams, the resiliency index of vinyl nitrile can vary significantly. Although the base stock determines the approximate range of resiliency indices, the factors that primarily determine the resiliency of the finished vinyl nitrile product are the number of chemical additives added to the base stock to control the degree of cross-linking during polymerization; the aeration of the substrate that determines the size of voids, their density and the overall density of the foam; and countless variables in the process timing and temperatures in the curing of the polymer foam. Thus, two vinyl nitriles, though born of the same base stock, can have significantly different resiliency indices.

Thus, the rejection based on Pyle should be withdrawn. The rejection is speculative since there is no guidance in Pyle toward the relationship between balance/stability and resiliency. Further, there is a very strong probability that a randomly selected vinyl nitrile material (such as Pyle's material) will fall outside the scope of the claims.

Claim Rejections - 35 USC § 103

The Examiner has rejected claims 4-6 and 12-13 under 35 USC § 103(a) as being unpatentable over either Marc or Pyle. The Examiner states that "Marc or Pyle as discussed above shows a sole element substantially as claimed except for the exact thickness of the sole. It would have been obvious to one having skill in the art at the time the invention was made to make the sole a thickness of between 12 mm and 20 mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPO 233."

The applicant respectfully submits that, since claims 4-6 depend on independent claim 1 and claims 12-13 depend on independent claim 9 and since these independent claims are believed to be patentable, claims 4-6 and 12-13 are also believed to be patentable.

For these reasons, the applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-18.

Accordingly, Applicant submits that all claims are in condition for allowance, and requests a prompt notice to that effect.